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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,182	01/24/2002	Patrick J. Hood	CRG 005 P2	9461

33805 7590 02/22/2005

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CLEVELAND, OH 44131

EXAMINER
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KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/056,182	<b>Applicant(s)</b> HOOD ET AL.	
	<b>Examiner</b> Allan Kuhns	<b>Art Unit</b> 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16, 23-26, 40-43 and 51-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 51-62 is/are allowed.
- 6) ☒ Claim(s) 1-13, 23-26 and 40-43 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

1.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.Claims 1, 3-13, 23, 24, 26, 40, 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabilly (6,083,442). Gabilly discloses or suggests the basic claimed method for making a mold from shape memory materials including (1) providing a shape memory material (it is submitted that the glass transition temperature is inherently above a curing temperature of the polyurethane used because column 3, lines 14-16 states that the perform “keeps the impression”), (2) processing the shape memory material into a memorized shape (column 2, lines 27-39), and (3) deforming the shape memory material from the memorized shape into a desired mold shape. While the aspect that the method is for manufacturing castable composite parts with resins which are solidified within the mold by application of a curing temperature is essentially a statement of an intended use for the method, the examiner takes Official Notice that forming such products by casting is known.

Gabilly teaches the use of a shape memory polymer, as in claim 3. The examiner takes Official Notice that the processing steps of claims 4-13, 24 and 41 are known processes in shaping or reshaping polymeric or metallic performs. Gabilly teaches a heat source in thermal communication with a film or perform, as in claim 26, at column 2, lines 59-65. Gabilly uses a form or foot which has a shape, as in claim 23. The examiner also takes Official Notice that it is also known to form a mold by providing

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a castable composite part (which is used as a master), as in claim 40. The aspects of claim 43 are essentially a statement of an intended use for the method, but it is also submitted that a shoe or shoe part, as formed by Gabilly, is a form of mechanical part.

3. Claims 2, 25 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabilly as applied to claims 1, 3-13, 23, 24, 26, 40, 41 and 43 above, and further in view of Kawai et al. (4,950,258). Kawai et al. disclose at column 1, lines 14-40 the interchangeable nature of polymers and alloys as shape memory material. It would have been obvious to one of ordinary skill in the art to use an alloy in the process of Gabilly since Kawai et al. teach that such materials are effective as well as polymeric material. Gabilly also teaches at column 1, line 37 that norbornene polymers, as in claims 25 and 42, are effective as shape memory polymers.

4. Claims 51-62 are allowed.

5. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. It appears, however, that the subject matter of claims 14-16 has been included in claims 51 and those dependent thereon.

6. Applicant's arguments filed November 26, 2004 have been fully considered but they are not persuasive. Applicant's arguments are considered to be moot by the examiner based on the revised ground of rejection introduced in this Office action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-

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1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ALLAN R. KUHNS  
PRIMARY EXAMINER AU 1732

2-17-05